Naked Plains of the

Arid West.

PRACTICAL MEN.

Dry farming presents a vital prob-

Statistics show that but 4 per cent of

or irrigation there will still remain

Conquest of the Elements.

The conquest of these adverse circumstances by the scientific adaptation

of grains and grasses, and the scientific

tical men as George L. Farrell of Cache

many of the best thinkers and most

Still in Its Infancy.

followed for many years in Arabia, Egypt, parts of Russia, parts of Aus-

tralia and other parts of the world; but

it is in its infancy in the United States.

This is due to the fact that up to this

time there has been an abundance of

well-watered land to be had at moder-

ate cost. But as the population has

continued to increase with leaps and

bounds, and as the tide of emigration

mand has become urgent for the utili-

zation of the arid lands even where

there is no water obtainable for irriga-

ernment are making valuable experi-

bodies of the state are taking a deep

interest in the subject; the second ses-

sion of the Trans-Missouri dry farm-

ing congress is to be held in Salt Lake

City in the last week in January, and

prominent citizens are lending every

possible aid in promoting the enter-

IS THERE A SANTA CLAUS.

(Appleton's Magazine.)

they is. I reckon I've saw him nigh onto

a hundred times myself-and he'll be

him to fail yit, an' I reckon they ain't

nobody's had more exper-ience in these

matters than me. No, course you ain't

saw him yourself, but you got a purr-

r-ty fair idee how he looks, now hain't

you? Sure! I knowed you had. Why,

ree-collect jest as well's 'twas yes-

tiddy the first time I see him. Let's

see, what year was that? Um-m, Brother Jim was born in-well, if I hain't clean forgotten. Well, well, 'pears

ike my mem'ry's kind o' failin' me on ittle things like that but when it comes

to Santy Claus-you betchy I don't for-

I kin dee-scribe old Santy with my

eyes shet. Tall? No, not exactly tall.

Kind of a little squatty roly-poly fel-

ler, if I remember right, with the fun-

niest little eyes you ever see. Reg'lar

little weasel eyes, but so full o' fun

How? How do I know he's comin'?

git anything about him.

here drecktly, too. He's jest a-whoopin down across them icebergs on his way here, licketty split, an' you betchy he'll be here on time, too. Never knowed

Why, land's sake, child, of course

Dry farming has been successfully

public-spirited men of the state.

county and Christopher Layton of Da-

TAKES THE LEAD

ALREADY DONE BY

# WEALTH OF A MIGHTY EMPIRE LIES DORMANT IN UTAH SOIL

# DRY FARMING PIONEER TALKS

George L. Farrell of Cache County Relates Many Interesting Experiences.

WEALTH FOR UTAH.

George L. Farrell of Smithfield, Cache county, Utah, has made a practhe greatest success in the entire arid thus far scored in Utah. He is now the owner of 1,700 acres of land, for which acre, on the entire 200 acres. We had he has refused \$150,000. Not an acre of a heavy snow that winter, and in the this land is irrigated. Relating his ex- spring as soon as it dried out, the perience, Mr. Farrell gives the follow- ground was baked over the top and be-

"Jan. 26, 1866, I entered upon a piece of arid land on the west side of the Cache valley and took up a quarter section, which proved to be railroad veried the ground. After I had har section, which proved to be railroad veried the field lengthwise I turned and Then I entered two sections of railroad land, which took in the mounand Salt Lake valley in Box Elder and

"I began to work at once in the spring as soon as the snow went off. farming ever since I was a little boy, but always worked where there was plenty of rainfall. As a consequence, I started plowing about three inches deep. I worked my ground over through the summer, and in the fall I sowed it to grain. The next spring it came up all right. It did well till it got to be about ten inches high. Then the sun dried it out and I lost

#### Keeps Right on Trying.

"The next year I plowed this same piece of ground again, this time about have threshed in fields where the stuban inch deeper. I sowed to grain again, but it dried out again, and my neighbors then told me that I had lost my I have threshed. senses. I used to feel of my head once in a while to see whether it was hot or for the stubble. cool. I found it to be cool, and I determined to go ahead and do the best

mind to plow the ground about two or here to make thirty bushels to the three inches deeper still. I got a new acre. low and started. The first forenoon I ran into a big root of great grass and broke my plow beam short off at the standard. Well, I made up my mind to nim: 'I will show you what I mean then to go to Logan and get a beam by raising wheat for the heads. I I did. I had a beam put in an inch and a half thicker and two inches deeper, and I had the bolt made longer. Then I started out again. But the carpenter got the point of the beam too high and the plow ran down eight inches, so that the team could not pull it. this head of wheat and scratch out had cattle three miles off came along. 'What's the matter,' says he.

'Look where the nose of my plow

'Well,' says he, 'go down to Peterprairie. I promise you he will be glad to let you have it.

### Plows Eight Inches Deep.

"'All right,' says I. and I put the team on and plowed 100 acres eight inches deep. Then I put my roller onto it and rolled it down. Then I disced it lengthwise and harrowed it crosswise. I continued to disc it and harrow it and work it till the first of Sep-



GEORGE L. FARRELL. One of the Pioneers of Dry Farming in Utah.

'I continued on plowing a little more each year. I kept adding to my original piece of ground till it covered 200 acres, and sowed the whole 200 acres to grain. Then I put one of my boys in charge to run affairs on the farm. We vere walking through a field one day just as the grain was beginning to turn ripe, when I noticed a small patch eight inches higher than the rest and much greener. I called my son's attention to this and we investigated. We found that the gophers and squirrels had un-dermined this patch and worked the ground up.

Lesson Taught by Gophers.

" 'They have been sub-soiling,' I said. KNOWS NOT THE WORD FAIL It has let the moisture down lower. It has continued to come up with the sun and the grain has continued to grow. POINTS THE WAY TO GREAT The heads are larger, the straw is longfield were sub-soiled we would have ten to fifteen bushels more to the acre. I am going to send east for a sub-soiler. "I did so. The next year I plowed that up and sub-soiled the whole thing, west, certainly the greatest success can remember, in 1879 or 1880. I sowed the seed, thirty-five pounds to the ing interesting facts, facts that should gan to crack. I went to town and got prove of great value to every dry farmer in the community: at an angle of 30 degrees. I harrowed the field, and the harrow teeth being tipped back, broke the crust and pulrowed the field lengthwise I turned and harrowed it crosswise. That year we tain and the bottoms on either side of bushels and eighteen pounds to the acre. Since then we have continued to sub-soil every third year.

#### Opens the Thresher's Eyes.

"Four years ago I hired a thresher. was a farmer, had been engaged in I told him I had about 10,000 bushels of wheat to thresh, and asked him if he could do the job for me.

"'You are the man I have been looking for,' he said, and I started him in on the big field. While his men were setting the machine in the center of the field he looked about. "'How much do you think this will make to the acre?' he asked.

"'Well,' I says, 'I think it will go ver thirty bushels.' 'Oh, no. No, sir. Why,' he says,

I have threshed all the wheat from Brigham City clear up here, and I ble was more than twice as thick as this, and thirty-two bushels is the best

"'Well,' I says; 'I don't raise wheat "'What do you raise it for?'

"'For the heads." 'Well,' he said; 'that may be all "I got another team and made up my right, but there is not stubble enough

#### Raises Wheat, Not Straw.

" 'We'll see about that,' I said. Then sowed thirty-five pounds of seed to th acre.

'Is that all?' he demanded. 'Why we sowed a bushel and a half. "That is why you have not threshed more than thirty-two bushels to the acre,' I told him. 'Now,' I says, 'take While I was sitting there a man who the center row—there is a row down the center and a row on each side.' "Well, he scratched out the row and have seen you sitting there for the last turned the head over and scratched best seil I have; the very best

son; he has a big team running on the the acre there would not be a particle raised from thirty-five to forty bushels of grain in the center row, but you and over to the acre. "I jumped on a horse and went down that one row. Two rows of twenty-six good kind until lately. We used to Utah. He has been in positions for the ground; for a weed drinks as much to see Peterson. 'Certainly,' says he. 'Here is the team, the harness and all, and how many bushels of year I got some Club barley. I broke the possibilities of dry farmand I won't charge you but two bits a wheat do you think it would make?'

The has been in positions to the harness and all, water as the wheat plant. When raise fifty bushels to the acre. Last years to enable him to make special water as the wheat plant. When study of the possibilities of dry farmand wheat wheat the wheat plant. When the search on all the heads on this plant water as the wheat plant. When the possibilities of dry farmand wheat worked it ing, and for these reasons his plant. When the possibilities of dry farmand wheat plant wheat plant water as the wheat plant when the possibilities of dry farmand wheat the plant water as the wheat plant when the possibilities of the possibili

> was weighed carefully as it came from the machine. The total figured up bushels of barley to the acre. forty bushels and eight pounds to the

### Pointers on Raising Rye.

o'clock the next morning. I had the the well. boys haul out the seed rye, half bushel o the acre

said my neighbor. 'No, not a bit more.' I told him. "'How much do you sow to the the fall.

'Half a bushel.' "'Well,' he says; 'you don't know nuch about raising rye.'

that to the acre. Can you sow a haif bushel to the acre?" "'Oh, yes. I can sow only a peck

and let it go at that.' The heads were seven inches

#### ty bushels on his five acres. Little Rain in Summer.

long and bent over with their own

weight. The grain was big and plump.

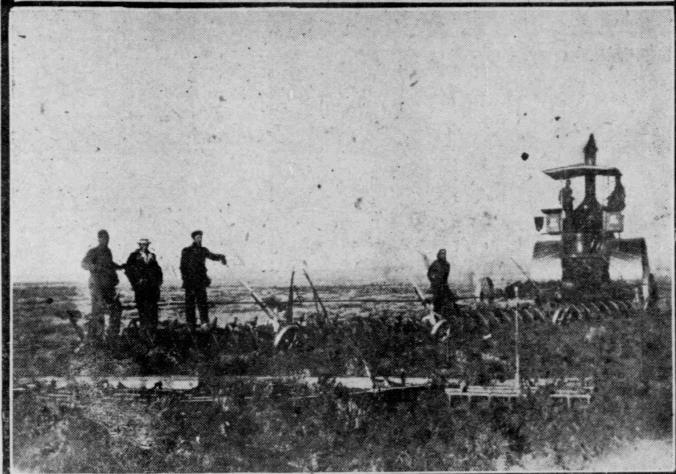
It made twenty-seven bushels to the

In response to direct questions Mr.

"The average rainfall in my portion sixty-eight and a half bushels. My that may fall upon it. Water does not ful study, and as a result is deeply importance, especialinches. Some seasons it runs as high Wonder.' It is a grand wheat. It grew soil; and in a soil that has been plowed by to the state of Utah. inches. Some seasons it runs as high as twenty. Our rainfall is mostly in the winter and early spring. It is largely in the form of snow. If we could have four inches of rainfall in May and June we would raise fifty bushels of wheat to the acre without trouble. Our elevation is 4,500 feet. it is clay loam on the east side of the mountain. On the west side there better prices for dry land wheat than fall plowing it is possible to retain thought of the bright minds in the Slaterville in 1884. He opened a small is a good deal of gumbo. This is the for any other."

Machine That Cuts, Threshes and Sacks a 34-Foot Strip of Wheat on a Dog Valley Dry Farm.





Plow That Runs Twenty-four Hours a Day on a Juab County Dry Farm.

out another row and counted the ker-nels. There were twenty-six. 'Now,' I says to him, 'if you were Gold Corn wheat. It has a stiff straw to sow a bushel and a half seed to and a plump head. Last year we

have twenty-six plump kernels from "As to barley. We did not have a much thought to farming conditions in soon as they show their heads above he says, 'I was never so over right well and sowed it to Club ions are worthy of consideration. He is absolutely sure, whether the seasurprised in my life. I never noticed barley. I raised ninety bushels to the says: acre. If you will attend to it right, "We threshed the field. The grain sub-soil your ground and work it over out exception of high fertility, and we DRY FARMING ON BIG SCALE

on my farm. I went down 178 feet to cessiul prosecution of this branch of get a flowing well. I got three-quarters agriculture, the soil must be looked tember. Then I sowed my grain. It came up very nicely in the fall and the next spring it did well. I raised twen-next spring it did well. I raised twen-next spring it did well. I raised twen-next spring it did well and prepared to sow it in rye. A neighbor had just moved in. He went down 250 feet before he struck ty-eight bushels to the acre off that had been a successful farmer in Den100 acres, and the neighbors began to
think I was not quite so crazy as when seed, and I told him if he would sow

Went down 380 feet before he struck is of the spring that of which is President John A. Widtsoe water. It rose to within sixteen feet of the greatest help in producing of the Agricultural college, has taken think I was not quite so crazy as when seed, and I told him if he would sow the top. He bored on down till he crops. The rains that fall in the early up a tract of 8,200 acres in a district I started out. In fact, a number of my field I would pay him at the rate them moved closer to me and took up of three bushels of rye a day. He said adjoining land and went to work.

The bord of down the crops. The rains that fall in the early up a tract of 8,200 acres in a district reached a depth of 476 feet, but could summer may or may not be helpful. The bord of that was absolutely desolate before the water no higher. I put a pump in and have always had plenty soils are well stored with moisture in to be a money-maker not only for the he could sow twenty acres a day. We pump in and have always had plenty soils are well stored with moisture in to be a money-maker not only for the agreed and he reported for work at 7 of water, but it never rises higher in the spring plants may be produced projectors, but for many others who

"I get my best results from plowing summer season. 4 the stubble under in the fall. We use 'You'll have to haul out more seed,' a header in harvesting the grain. This leaves a large quantity of straw on the ground. It pays to plow this under in

#### How to Handle Alfalfa. "When you sow alfalfa on dry land

much about raising rye."

"I don't profess to know much, but don't want to sow more seed than hat to the acre. Can you sow a half be sure you plow the ground in the as soon as it is dry enough to work utilized properly. It matters little twenty-four hours. It turns a strip without sticking to the tools, the har- whether the soil is sand, clay or loam. twenty-four feet wide. Headlights are "Well, sow a half bushel to the acre always sow about eight pounds of seed to the acre, and half a bushel of oats. Is a coarse sand, and the soil near east of Lovelock, Nev. It cuts the grain, threshes it and sacks the grain, threshes it and sacks the grain. fifteen bushels of seed rye in payment. He took it home and sowed it on five acres, three bushels to the acre. The next spring my rye came up, a root here and there. I hired a boy to harrow it both ways and kill the sunflowers. When I raid kim her side of the mountain of lucern on the side of the mountain of the side of the side of the mountain of the side of the sunflowers. When I paid him he told of lucern on the side of the mountain it must be remembered that much of ley three years ago, when an experime all the rye I would get off that field I could put into my eye. He best Swedish dats I could find. It did best swedish dats I could find. It did best swedish dats I could find the secret of success lies in causing the mental dry farm was established in best swedish dats I could find. It did best swedish dats I could find the surface; that is, the reinfall of Juab county by officials of the Agrisaid I had killed the rye when I killed the sunflowers. That was in April. So well that when my son came home the sunflowers. That was in April. from the Agricultural college I told the season should be stored to a depth Pretty soon a heavy rain fell and in him we would let the pats mature and ordinarily of at least six to eight feet,

Arid Land Wheat Is Best.

"Arid land wheat is better than wheat raised by irrigation. I plowed acre. My neighbor Elickson got twen- up two acres of lucern in the spring of 1905-it had been in lucern for fourteen ably sufficient rainfall, the two fundateacupful, that I got from England five First, how to get the water into the years before. It was said to be the "Our soil is a clay loam. Part of all the irrigated land wheat at the fair. laid down that the only right time to

#### HEAD OF AGRICULTURAL COLLEGE GIVES POINTERS

the Agricultural college, has given top is stirred. Weeds are destroyed as

"The soils of Utah are almost withabout the food requirements of the "There is no water near the surface plants that are grown. For the sucwhether rain falls or not during the are following in their fcotsteps.

### Right Kinds of Soil.

less than no time you could see the rye coming up through the dirt. It was the finest crop of rye you ever of straw and alfalfa mixed.

The strain real and in thresh it. We got over 680 bushels of and in many cases much deeper. Under such conditions it is far from the effects of the sun, and may be drawn and alfalfa mixed. We got over 680 bushels of and in many cases much deeper. Unupon slowly as needed by the plant

## Two Fundamental Requisites.

"With a suitable soil and a reason-I had a little spring wheat, a mental questions in arid farming are:

all the moisture that falls upon the land. Then in the spring, as soon as the farmer can get out upon the land, it is harrowed to form a thick dust mulch, which acts as a blanket against Professor John Widstoe, president of evaporation. After every rainfall the son is wet or dry.

# WITH BEST OF MACHINERY

Utah's most extensive experiment in

Beginning Aug. 20, the company op erating in Dog valley planted 2,000 acres of wheat. At last reports this "The essential requisite of a soil to wheat was looking exceptionally well be used by the arid farmer is depth, and the outlook is for a bumper crop. and, as far as possible, uniformity. This will be the third crop raised on year than the wholesale commission a real handsome man—but, oh, powerful Gravel streaks, or a gravelly subsoil, this farm. The rainfall in Dog valley

row and the disc, work the top over. I The ridge on which Father Layton used at night to aid in the work. The all at one time. It is run by a 110 horse

> the surface; that is, the rainfall of cultural college. The experiment farm proved such a success that the Dog valley farm is the result. Lewis F. Merrill, formerly of the Agricultural college, is in charge of the farm in in fact, he is the firm. the capacity of secretary and manager.

#### FOUR PER CENT OF UTAH'S LAND UNDER CULTIVATION

Fisher Harris, secretary of the Salt soil; and, secondly, how to keep it Lake City Commercial club, was elect-Farrell gave the following additional information that will be of value to many in solving the dry farming probground and, as a result, I threshed out any rainfall or snowfall, however light, Mr. Harris has given the subject care.

"The people of Utah," he said, in dis-

"This is a startling statement. It for seeding time about 85 per cent of state and nation. It is clear that by retail butcher shop on the west side, ter, eggs, cheese and poultry.

private enterprise and by all the aid that may be received through the operations of the reclamation act of the federal government it is not possible to increase this 4 per cent of cultivated land in the state beyond 15 per cent of the total area. And yet in all parts of the state there are extensive plains and vast stretches of upland for which no water can be obtained save such as falls direct from heaven. Wonderful Possibilities on the

#### Insistent Cry for Homes.

"Irrigation has worked wonders, but it has its limitations and they will soon be reached. The hour has arrived for the statesman, the economist, the philanthropist, the scientist to open up ew fields, new avenues of hope for the UTAH swarming population of the eastern half of the nation. Men are moving from the wornout lands of the older THINGS states to the new lands of the west, and the insistent, importunate and ever-increasing cry is for additional homes for those willing to work.

"Dry farming in Utah and the surrounding states in the arid belt pre-lem, especially in Utah, where rich land sent wonderful opportunities. If pub-is plentiful and water for irrigation lic-spirited men, by taking counsel to- scarce. The possibilities of dry farmgether, can devise some method of ing in the state appeal to the imagscientific soil culture by means of ination with great force. The subject which this empire of rich land now is worthy the best thought of the welllying idle under the sun can be brought wishers of the commonwealth, under cultivation and placed at the Statistics show that but 4 pe under cultivation and placed at disposal of willing home-builders it would seem to be an object worthy of tivation. It is certain also that after all available water has been utilized all available water has been utilized

"Its success would mean a largely increased population for Utah; addi- vast tracts of land in the state where tional homes; a largely increased num- the soil is rich and the climate favorber of food-producers; more wealth; able to crop raising, but where water wider markets for the manufacturers is and always will be lacking. in short, more of everything that is necessary and desirable in a well-regulated commonwealth.

#### Objects of the Congress.

"This, in brief, is the object of the cultivation of the soil, presents the Trans-Missouri Dry Farming con-gress. It was organized to encourage the establishment of additional expe-the establishment of additional experiment stations throughout the arid of the national government; it has led west; to foster and encourage agita- to wide and varied experiments; it has tion and discussion of the subject and led to the organization of the Transo hold meetings at times and places most convenient for the exchange of deas—to give all interested persons Luther Burbanks of California and H. the benefit of the experience of experts W. Campbell of Nebraska; it has been and practical dry farmers. the life study of such earnest and prac-

"The membership of the congress is made up of presidents and other offiials of agricultural colleges, officials vis county; it is the inspiration of of state and national experiment sta-tions, representatives of the department of agriculture at Washington, practical farmers who are solving the veryday problems of dry farming under the different conditions that arise in different localities, and above all, men like H. W. Campbell of Nebraska and George L. Farrell of Utah, who have devoted their lives to the conquest of the arid west where irrigation out of the question.

### Strong Men Will Be on Hand.

"The first session of "the congress was held at Denver last winter. Six-teen states were represented by accredited delegates, and the discussions were marked with unusual thoroughness and thoughtfulness. The second ession of the congress will be held in Salt Lake City Jan. 25 and 26, 1908. It s expected that Secretary Wilson of the solution of the dry farming probhe department of agriculture, Luther lem. Here the national and state gov-Burbank of California, H. W. Campbell of Nebraska and many other ments: the Agricultural college of the noted experts will attend this session state is right in line; the commercial and take part in the discussions."

## JOHN HOLLEY.

One of Salt Lake's Leading Produce Commission Men.



No line of commercial industry in that they jest plum brim over and spill Salt Lake has prospered more the past out on his cheeks. Not what you'd call business of the city. The dealers in this if he takes a shine to you. If you're are detrimental because they interfere with the continuity of the soil. There must be a continuous layer of soil

The plow used on the Dog valley are detrimental because they interfere averages eighteen inches annually. The business of the city. The dealers in this line of business now form one of the most influential and substantial classes. How? How? of merchants in the city, and their bus-iness is increasing monthly to figures How do I know? Why, bless ye, I know that will in a very short time place the signs as well as I know beans. You them among the heaviest shippers of know how a new Noey's Ark smells, produce in the west.

Their business has come to the front Whenever you go down to the store and more in the past two years than for ketch a whiff o' new Noey's Arks, you ten years past. The constantly in- c'n make up your mind that old Santy's creasing population of Salt Lake, the increase in restaurants, clubs and cafes, increase in restaurants, clubs and cafes, too. Along in the late fall when the has wrought an enormous increase in year's gettin' kinda old an' decrepid the business of the commission men, like, jest hobblin' along to'rd December, while the small towns that have sprung up along the lines of the railroads of the state have given the local commister that have given the local commister the state have given the local commister. sion men more and more business. along comes a whole bunch of 'em, each

Among the leading merchants in the commission business here is John Holley. The firm name is John Holley & the bustin point by the 24th of December. If Chris'mas had came two days ston business know that John Holley is later the strain would be too much. Old the brains and backbone of the firm; Nature would jest throw up both hands

Starting on a farm near Slaterville, figgered 'n this, so Chris'mas comes two Utah, twenty-five years ago, he has days earlier than it would if it come two come steadily to the front until today days latter an' so everybody manages he handles about 300,000 pounds of but- to live through it safely. Talk about ter annually, 10,000 cases of eggs and a excitement! Why, the buzz o' chilgreat quantity of veal, hogs and poul- dren talkin' an' the thumpin' of little try. His business is accounted the larg-est wholesale and jobbing commission enough t' plum drown'd out the sound business in the city, and one of the o' sleigh bells, to say nothin' o' th'

largest in the entire state. John Holley has come up from a poor man. Today his office and warehouse building at 51 Richards street is the and operated it for sixteen years. Fiheadquarters for the buyers for the nally, realizing the possibilities of the largest hotels, restaurants, cafes, clubs wholesale commission business, he deand organizations of every sort who termined to start a commission house. deal with commission men.

### Honest and Energetic.

and social way. Mr. Holley came to Salt Lake from arde street.

# enough t' plum drown'd out the sound crunch o' fur boots on the housetops.

Moving to 69 South West Temple street, he stayed there a short time, and then moved to 350 West South Temple His reputation for honesty, integrity Again moving, he opened a larger and and energy is unimpeachable, and he is better establishment at 55 Richards well liked among the men with whom street. He determined to have more he comes in contact, both in a business room, and a short time ago moved a few doors up the street to No. 51 Rich-

an' call in th' doctor. But you see they

Mr. Holley makes a specialty of but-